

New

NEMICON

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# Ultra Miniature size Encoder 7S Series



**Feature**

- Ultra mini size body : OD7mm、Body10mm
- High Resolution : Up to 400 resolution
- Environmental : IP50
- Operating Temperature : -10~+80°C

**Application**

- Robotics
- Motor
- Electrical actuator
- Semiconductor Machine
- SMT Machine
- Medical Machine
- Industrial Machine
- Inspection system
- Office Automation
- Carrier Machine

**Model**    7S    -         -    2MC    -         -    00E  
Resolution 100, 200, 400    Signals A, B, Z Open Collector    Cable length 50: 50cm

**Electrical Spec**

Resolution	100, 200, 400
Signals	A, B, Z (index signal)
Output Type	Open collector
Supply Voltage	DC4.5 ~ 5.5V
Current consumption	30 mA Max
Operating Frequency	100 KHz Max

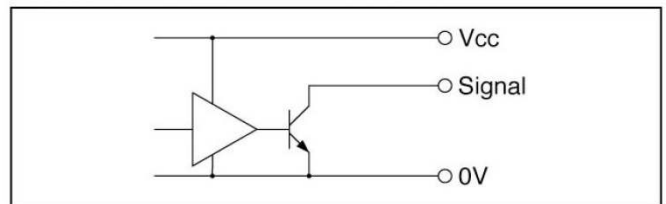
**Mechanical Spec**

Starting Torque	3.0 × 10 <sup>-4</sup> N·m or Less	
Angular acceleration	1 × 10 <sup>5</sup> rad/s <sup>2</sup>	
Sealing	IP50	
Allowable load to shaft	Thrust	0.98N
	Radial	1.90N
Moment of inertia	1 × 10 <sup>-9</sup> kg·m <sup>2</sup>	
Max Rotating speed	6000 r/min	

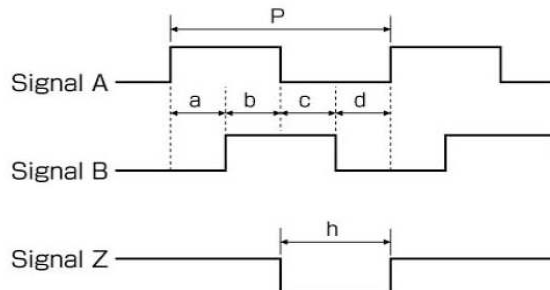
**Environmental Spec**

Operating Temperature	-10°C~+80°C
Storage Temperature	-20°C~+80°C
Humidity	RH 90% Max No condensation
Vibration	55Hz/1.5mm X, Y, Z each 2H
Shock	500m/s <sup>2</sup> X, Y, Z each 3 times

**Circuit of output signal**



**Wave Form**



$$P = \frac{1}{1 \text{ resolution}}$$

$$a, b, c, d = \frac{P}{4} \pm \frac{P}{8} \quad \frac{P}{4} \leq h \leq \frac{3P}{4}$$

$$\text{Duty} = (A, B) \frac{P}{2} \pm \frac{P}{4}$$

**Dimensions**

